



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

February 10, 2003

Reply To
Attn Of: OW-137

Mr. Michael Ollivant, P.E.
Project Manager
Parametrix, Inc.
P.O. Box 460
Sumner, WA. 98390-1516

Dear Mr. Ollivant:

This letter is in response to your January 16, 2003 letter regarding the revised quality assurance project plan (QAPP) and sampling and analysis plan, Quil Ceda Village treated effluent infiltration system inventory and assessment. The following parameters need to be considered as target compounds in addition to the chemicals in table 2.2 of the sampling and analysis plan and QAPP: 1) organic chemical acrylamide, 2) benzo (a) pyrene (PAH's), and 3) epichlorohydrin. Also, a baseline for radionuclides (alpha/beta and Ra-226-228 combined) is needed. With these additions, the proposed procedures are appropriate to satisfy the requirements for a QAPP and a signed copy of the plan is enclosed. Please call Thor Cutler at (206) 553-1673 if you have any questions.

Sincerely,

Tim Hamlin, Manager
Ground Water Protection Unit

cc: Ken Fellows- Parametrix
Tom McKensey- The Tulalip Tribes
Talib Syed- TSA

Name	Thor Cutler	Tim Hamlin
Date	<i>Thor Cutler</i>	
Signature	<i>2/3/03</i>	

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EPA would like you to include the following parameters

Sincerely,

Tim Hamlin, Manager
Ground Water Protection Unit

cc: Ken Fellows- Parametrix
Tom McKensey- The Tulalip Tribes
Talib Syed- TSA

*Can you
sign a
plan that
you are
leaving
be changed?*

Incident Response – Intentional Contamination SituationWater Quality Sampling & Analysis

- Purpose:
- 1) Determine if something has been added to water / unusual WQ.
 - 2) Determine level of health risk (potential) – consume, touch, shutoff?
 - 3) Assist in determining actions.

A) Haz Mat Team Response

<ul style="list-style-type: none"> • Rads – Geiger counter • pH • Conductivity • Explosivemeter – O₂ Level, Lower Explosive Limit (LEL) • F.I.D. – Flame Ionization Detector – petroleum products • P.I.D. – Photo Ionization Detector – chlorinated compounds • T.I.P. – Total Ionization Potential (Sniffer – gross organics check) 	<p>Purpose:</p> <ol style="list-style-type: none"> 1) Assess immediate danger to first responders – explosives, off gassing. 2) Assess need for Lab personnel safety 3) Heads up to Lab on concentration levels of contaminants (high, low)
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B) Sampling - Analysis

1. On-site:

Cl₂ Residual - Total & Free; Rads, pH, Conductivity, TIP (Haz Mat Responders).

2. Laboratory Analysis:Usually-----

- a. Complete Inorganic Chemical (metals)
- b. VOCs
- c. SOCs – Method 525 (GCMS)
- d. Bacteriological: Coliform and HPC

Maybe-----

- e. Exotic Bio-organisms (State Lab)
- f. Radionuclides
- g. SOCs – Methods 515 & 531
- h. Others ???

3. Sample Collection:

- a. Initial 2 sets of triplicate samples for each test method ASAP from incident site.
- b. Second set of triplicate samples at 4 hours, and at 8 hours – then as needed.
- c. Sample sets should be directed to two different laboratories.

- d. Labs should be contacted as soon as possible in order to allow for needed mobilization and preparation time.
- e. Chain of custody forms should be used.

C. Chemical Analysis Methods / Equipment

- **Metals** – ICP MS (Inductively Coupled Plasma Mass Spectrometer) (new method allow As detection to 1 ppb) Nitrite, fluoride - *cyanide require different method?
- **SOCs - Method 525** – GCMS (Gas Chromatograph Mass Spectrometer) (Must do concentration and extraction process for SOC's) GCMS can be operated to 'scan' for wide range of organic chemicals in order to qualify a sample. To quantify a sample concentration, will need standardization and QC steps.
- **VOCs** – GCMS Direct injection of sample into instrument. (High concentrations require dilution steps).
- **SOCs – Method 515** (chlorinated herbicides) GC-ECD (Electron Capture Detector) *525 GCMS scan would indicate these compounds at high concentrations.
- **SOCs – Method 531** (carbomate insecticides) – HPLC (High Performance Liquid Chromatography)

ROUTING AND TRANSMITTAL SLIP

Date

2/10/03

TO: (Name, office symbol, room number,
building, Agency/Post)

Initials

Date

1. Thor Cutler

MC

2/10/03

2. Tim Hamlin

3. Lynn Thomas (forward to
Party +

4.

cc plus

5.

file copy to
Thor.)

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

REMARKS

Tim: QAPP for Quil Ceda
Action: Please Approve
The following plan has been
reviewed by the QA department and
a/c program. This is necessary
for the Quil Ceda operators to commence
sampling and will be part of the
future Quil Ceda Server system record.

DO NOT use this form as a RECORD of approvals, concurrences, disposals,
clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post)

Room No.—Bldg.

06W-137

Thor Cutler

Phone No.

553-1673

5041-103

*U.S. GPO: 1995-404-783/20084

OPTIONAL FORM 41 (Rev. 1-94)
Prescribed by GSA